CLAIMS:

1.   Method of noise filtering (3) a signal (x), the method comprising the steps of:

estimating (30) a type of noise in the signal (x); and

enabling (30) one of at least two noise filtering operations (310,311,312), the

enabled noise filtering operation (310,311,312) being a most suitable noise filtering operation

5   for the estimated type of noise.

2.   Method of noise filtering (3) as claimed in claim 1, wherein:

a median filtering operation (312) is enabled if the estimated type of noise is

long-tailed noise; and

10   a spatio-temporal rational filtering operation (310,311) is enabled if the

estimated type of noise is Gaussian noise or contaminated Gaussian noise.

3.   Method of noise filtering (3) as claimed in claim 2, wherein the rational

filtering operation (310,311) comprises:

15   enabling a first temporal filtering operation (310) if the estimated type of noise

is Gaussian noise; and

enabling a second temporal filtering operation (311) if the estimated type of

noise is contaminated Gaussian noise,

the first temporal filtering operation (310) taking into account at least one

20   temporal direction and the second temporal filtering operation (311) taking into account at

least one combination of a temporal direction and a spatial direction.

4.   Method of noise filtering (3) as claimed in claim 1, wherein a kurtosis of the

noise (z) is used (303) as a metric for estimating the type of noise.

25

5.   Method of noise filtering (3) as claimed in claim 2, wherein a kurtosis of the

noise (z) is used (303) as a metric for estimating the type of noise;

the median filtering operation (312) is enabled if the kurtosis is above a first

threshold; and

the rational noise filtering operation (310, 11) is enabled if the kurtosis is below said first threshold;

6.   Method of noise filtering (3) as claimed in claim 3, wherein a kurtosis of the noise (z) is used (303) as a metric for estimating the type of noise;

the median filtering operation (312) is enabled if the kurtosis is above a first threshold;

the rational noise filtering operation (310,311) is enabled if the kurtosis of the noise is below said first threshold, wherein the rational filtering operation comprises:

enabling the first temporal filtering operation (310) if the kurtosis is below a second threshold, said second threshold being lower than said first threshold; and

enabling the second temporal filtering operation (311) if the kurtosis is above the second threshold and below the first threshold.

7.   A method of noise filtering (3) as claimed in claim 6, wherein the first threshold is about 15 and the second threshold is about 6.

8.   Method of noise filtering (3) as claimed in claim 1, wherein the noise (z) in the signal is approximated by a difference (302) between the signal (x) and a noise-filtered (301) version of the signal (x).

9.   Method of noise filtering (3) as claimed in claim 8, wherein the noise-filtered version of the signal (x) is obtained by subjecting the signal (x) to a median filtering operation (301).

10.   Device (3) for noise filtering a signal (x), the device (3) comprising:

means (30) for estimating a type of noise in the signal (x); and

means (30) for enabling one of at least two noise filters (310,311,312), the enabled noise filter (310,311,312) being a most suitable filter for the estimated type of noise.

11.   Video system (1) comprising:

means (2) for obtaining an image sequence (x),

a device (3) as claimed in claim 10 for noise filtering the image sequence (x).